

Applicant : Scott C. Glasgow et al.
Appln. No. : 10/648,757
Page : 2

In the Specification:

Please replace the paragraph beginning on page 1, line 4 with the following:

This application is a continuation-in-part of application serial no. 09/964,914, filed September 27, 2001, now U.S. Patent No. 6,648,384, entitled "CRUSH TOWER WITH RINGS OF VARIED STRENGTH" the entire contents of which are incorporated herein by reference.

Please replace the paragraph beginning on page 18, line 9 with the following:

Thus, the crushable inserts provide additional resistance to rolling of tube section 77 and can be used to tune the performance of the energy management tube. The illustrated crushable insert 75 in Figures [22 and 23] 23 and 24 are made of an elastomer material that, upon longitudinal loading, will crush when imparted by the rolling radius of the intermediate tube section 79. Convex circular rings 81 are positioned between thicker boundary rings 80. When the crushable inserts are loaded, the rings 80 transfer load to the convex region which initiate crush on loading. Outward crushing of the convex region 81 is impeded by the inner surface of tube section 78. Similar performance can be achieved when tube section 78 rolls and tube section 77 maintains column strength. The crushable inserts can be made from various materials and different geometry can be used to tune the performance of the energy management tube. Crushable inserts can be used to tune the tube performance instead of increasing tube diameter or material thickness. Some standard ways to tune the performance of the tube can be accomplished by increasing the material thickness or increasing the tube diameter. The use of crushable inserts provides an alternative way to tune performance without the addition of significant cost and without the added penalty of weight.